

1. A method of determining liquid absorption of an aggregate,  
the method comprising:

providing a shaker apparatus, a vacuum source and a  
container;

5 placing a sample of the aggregate in the container;

adding liquid to the container sufficient to reach a calibration  
mark on the container;

weighing the sample and liquid;

mounting the container to the shaker apparatus;

10 connecting the vacuum source to the container;

agitating the sample and liquid with the shaker apparatus;

applying a vacuum to the sample and liquid with the vacuum  
source;

after the agitation and vacuum steps, adding liquid to the  
15 container sufficient to again reach the calibration mark on the container;

again weighing the sample and liquid; and

subtracting the initial weight of the sample and liquid from the  
final weight of the sample and liquid in order to determine the liquid  
absorption of the aggregate.

2. The method of claim 1 further comprising the steps of:  
dividing the difference between the initial and final weights of  
the sample and liquid by the dry weight of the sample; and  
multiplying the quotient by a constant and by 100 to determine  
5 the percent liquid absorption of the aggregate.

3. The method of claim 2 wherein the constant is about 0.5.

4. The method of claim 1 wherein the agitation and vacuum  
steps are performed simultaneously.

5. The method of claim 1 wherein the agitation and vacuum  
10 steps are performed sequentially.

6. The method of claim 1 wherein the agitation step is  
performed first and the vacuum step is performed second.

7. The method of claim 1 wherein a series of agitation steps are  
alternated with a series of vacuum steps.

8. The method of claim 1 wherein the agitation step is  
15 performed for about 5 minutes and then the vacuum step is performed for 5  
about minutes.

9. The method of claim 6 wherein the vacuum step applies a vacuum of about 22 inches of Hg.

10. The method of claim 6 where the vacuum step applies an initial vacuum of about 22 inches of Hg and a final vacuum of about 28  
5 inches of Hg.

11. The method of claim 1 wherein agitation is performed for about 3 minutes, agitation and about 22 inches Hg vacuum is performed for about 3 minutes and agitation and about 28 inches Hg vacuum is performed for about 5 minutes.

12. Apparatus for determining liquid absorption of an

aggregate comprising:

a shaker apparatus for supporting and agitating a container  
containing a sample of the aggregate and liquid;

5 a vacuum source for applying a vacuum to the sample and  
liquid; and

a processor/controller operably associated with said shaker  
apparatus and vacuum source which controls operation of said shaker  
apparatus and vacuum source in response to inputs received from an operator  
10 of said apparatus.

13. The apparatus of claim 12 wherein said processor/controller controls the vibration frequency, amplitude and duration of said shaker apparatus.

14. The apparatus of claim 12 wherein said processor/controller controls the vacuum pressure and duration of said vacuum source.

15. The apparatus of claim 12 further comprising:  
a weighing device;  
said processor/controller operably associated with said weighing device;  
said processor/controller operable to cause said weighing device to weigh the sample and liquid before and after operation of said shaker apparatus and vacuum source, to compute a percent liquid absorption of the sample from the weights of said weighing device and to display the percent liquid absorption of the sample.

16. The method of claim 1 further comprising the steps of:  
adding the dry sample weight to the weight of the container, sample and liquid with the liquid at the calibration mark on the container;  
subtracting from that sum the final weight; and  
dividing that difference into the dry sample weight to determine the apparent specific gravity of the aggregate.